This listing of claims replaces all prior versions of the claims in this Application.

Listing of the Claims

Claim 1. (Previously Presented) A method of manufacturing a device comprising the steps of: a) disposing a sacrificial material layer on a device substrate; b) disposing an overlayer material on the sacrificial material layer; and then c) removing the sacrificial material layer to form an air gap; wherein the sacrificial material layer is a cross-linked polymer comprising as polymerized units a multi-ethylenically unsaturated monomer.

Claim 2. (Original) The method of claim 1 wherein the overlayer material is an organic polysilica material.

Claim 3. (Currently Amended) The method of claim 1 wherein the sacrificial material comprises as-polymerized units of one or more ~~methacrylate~~(meth)acrylate-containing monomers or ~~methacrylate~~(meth)acrylate-containing cross-linking agents.

Claim 4. (Original) The method of claim 1 wherein the device is an electronic or optoelectronic device.

Claim 5. (Original) The method of claim 1 wherein the sacrificial material is photoimageable.

Claim 6. (Original) The method of claim 1 wherein the device substrate comprises metal lines.

Claim 7. (Original) The method of claim 1 wherein the sacrificial material comprises one or more reactive functional groups selected from the group consisting of carboxylate groups, amine groups, imine groups, oxime groups, hydroxy groups, aldehydes groups, disulfide groups, thiol groups and combinations thereof.

Claim 8. (Original) The method of claim 1 further comprising the steps of i) patterning the overlayer material and the sacrificial material layer to form features; and ii) depositing a metal into the features, wherein steps i) and ii) are performed after step b) and before step c).

Claim 9. (Canceled)

Claim 10. (Original) The method of claim 1 wherein the overlayer material has sufficient porosity to allow the sacrificial material to be removed through it.

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Claim 11. (Previously Presented) An electronic device comprising a first layer comprising metal lines and a sacrificial material layer disposed between the metal lines and a second layer disposed over the metal lines and the sacrificial material; wherein the sacrificial material layer is a cross-linked polymer comprising as polymerized units a multi-ethylenically unsaturated monomer.

Claim 12. (Original) An electronic device comprising metal lines and a sacrificial material disposed between the metal lines, and an overlayer material disposed over the sacrificial material and adjacent to the metal lines.

Claim 13. (Original) The device of claim 12 wherein the overlayer material is porous.

Claims 14-18. (Canceled)

Claim 19. (Previously Presented) The method of claim 1 wherein the sacrificial material layer comprises cross-linked polymeric particles.

Claim 20. (New) A method of manufacturing a device comprising the steps of: a) disposing a composition comprising one or more multi-ethylenically unsaturated monomers on a device substrate; b) curing the one or more multi-ethylenically unsaturated monomers to form a cross-linked polymeric sacrificial material layer on the device substrate; c) disposing an overlayer material on the sacrificial material layer; and then d) removing the sacrificial material layer to form an air gap.

Claim 21. (New) The method of claim 20 wherein the composition further comprises a polymer.

Claim 22. (New) The method of claim 21 wherein the polymer is a cross-linked polymer particle.

Claim 23. (New) The method of claim 20 wherein the one or more multi-ethylenically unsaturated monomers are (meth)acrylate monomers.

Claim 24. (New) The method of claim 20 wherein the overlayer material is an organic polysilica material.

Claim 25. (New) The method of claim 20 wherein the sacrificial material layer is photoimageable.

Claim 26. (New) The method of claim 20 further comprising the steps of i) patterning the

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overlayer material and the sacrificial material layer to form features; and ii) depositing a metal into the features, wherein steps i) and ii) are performed after step c) and before step d).

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